OIPE JC98
JUL 21 2005
PATENT & TRADEMARK OFFICE

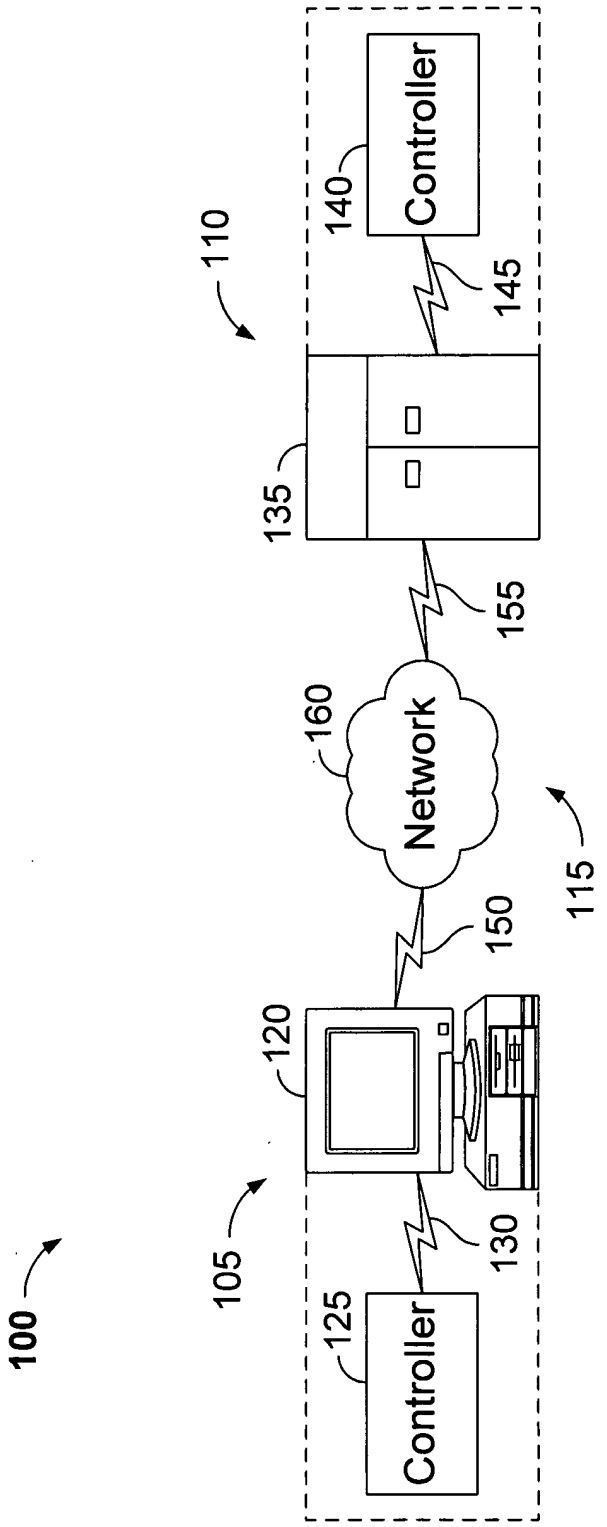

FIG. 1

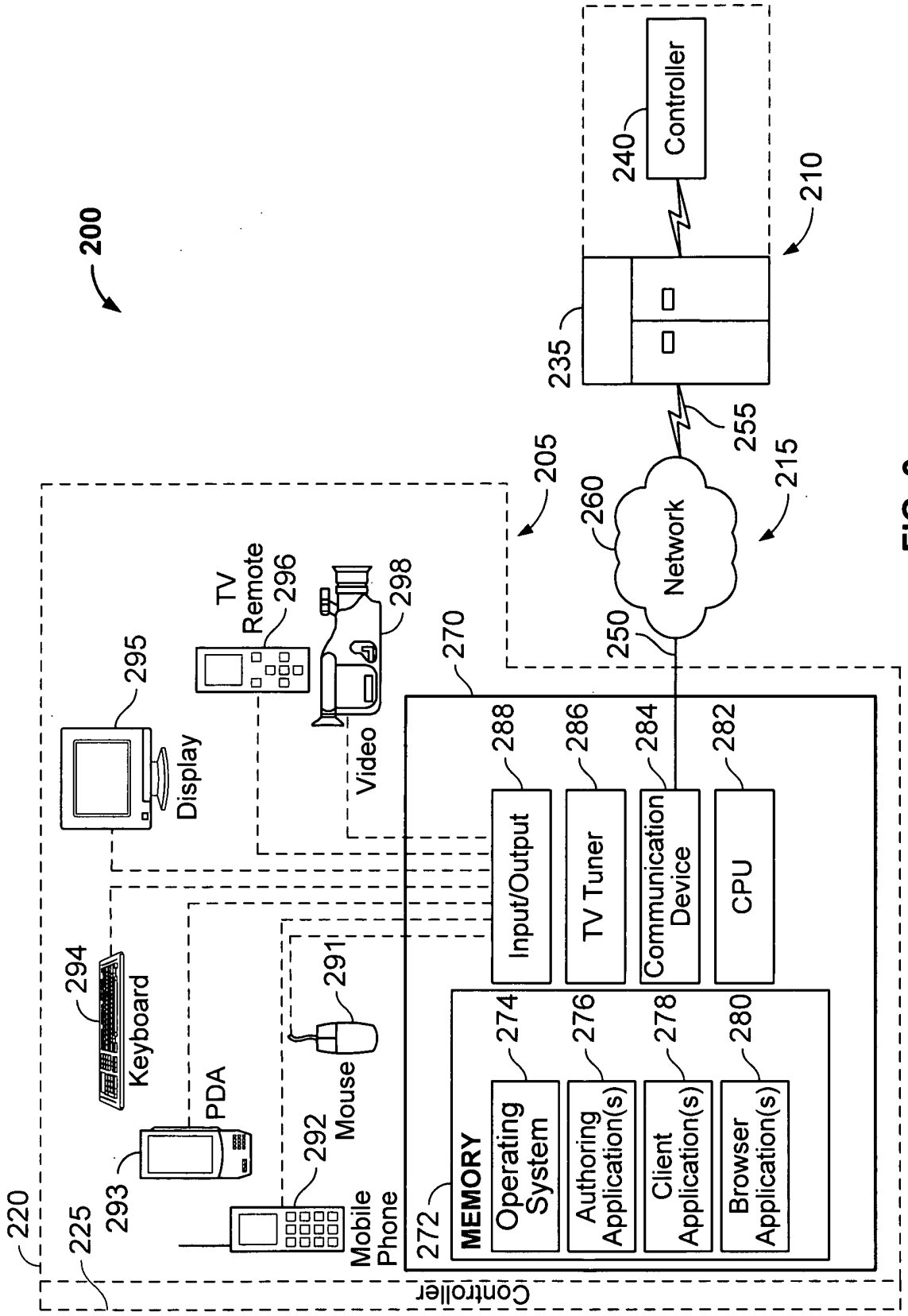
200
210
240
Controller
235
255
215
Network
260
250
205
270
TV Remote
296
298
Video
295
Display
288
286
284
282
Input/Output
TV Tuner
Communication Device
CPU
294
Keyboard
291
Mouse
PDA
292
293
Mobile Phone
220
225
Controller
MEMORY
272
274
276
278
280
Operating System
Authoring Application(s)
Client Application(s)
Browser Application(s)

FIG. 2

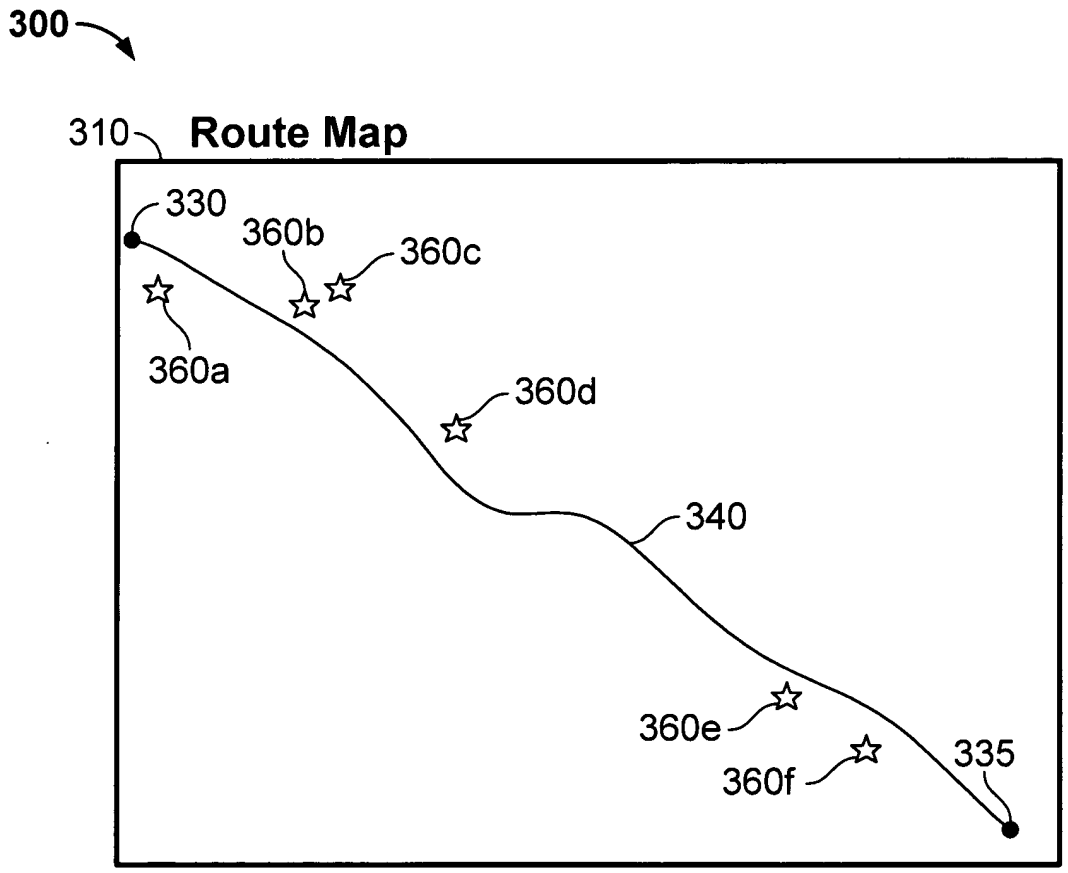

FIG. 3

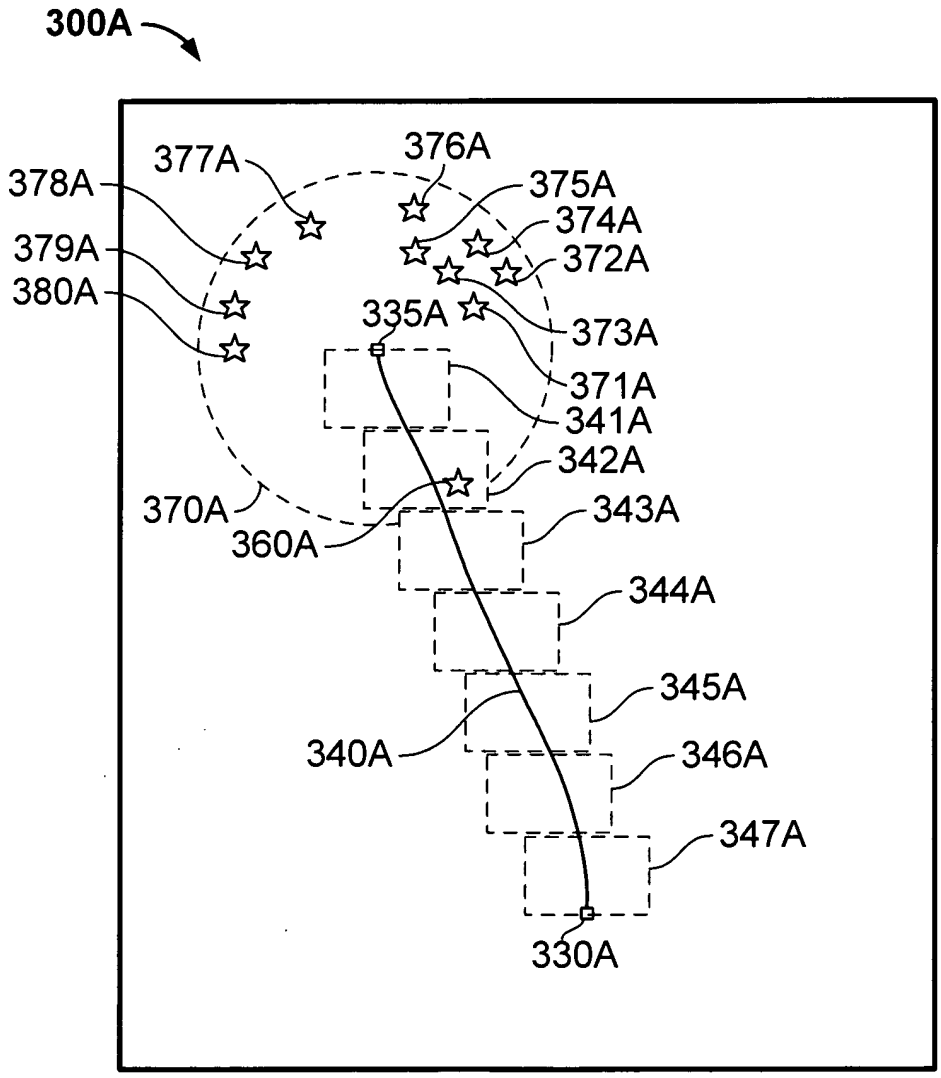
300A
377A
376A
378A
375A
374A
379A
372A
380A
335A
373A
371A
341A
342A
370A
343A
360A
344A
345A
340A
346A
347A
330A

FIG. 3A

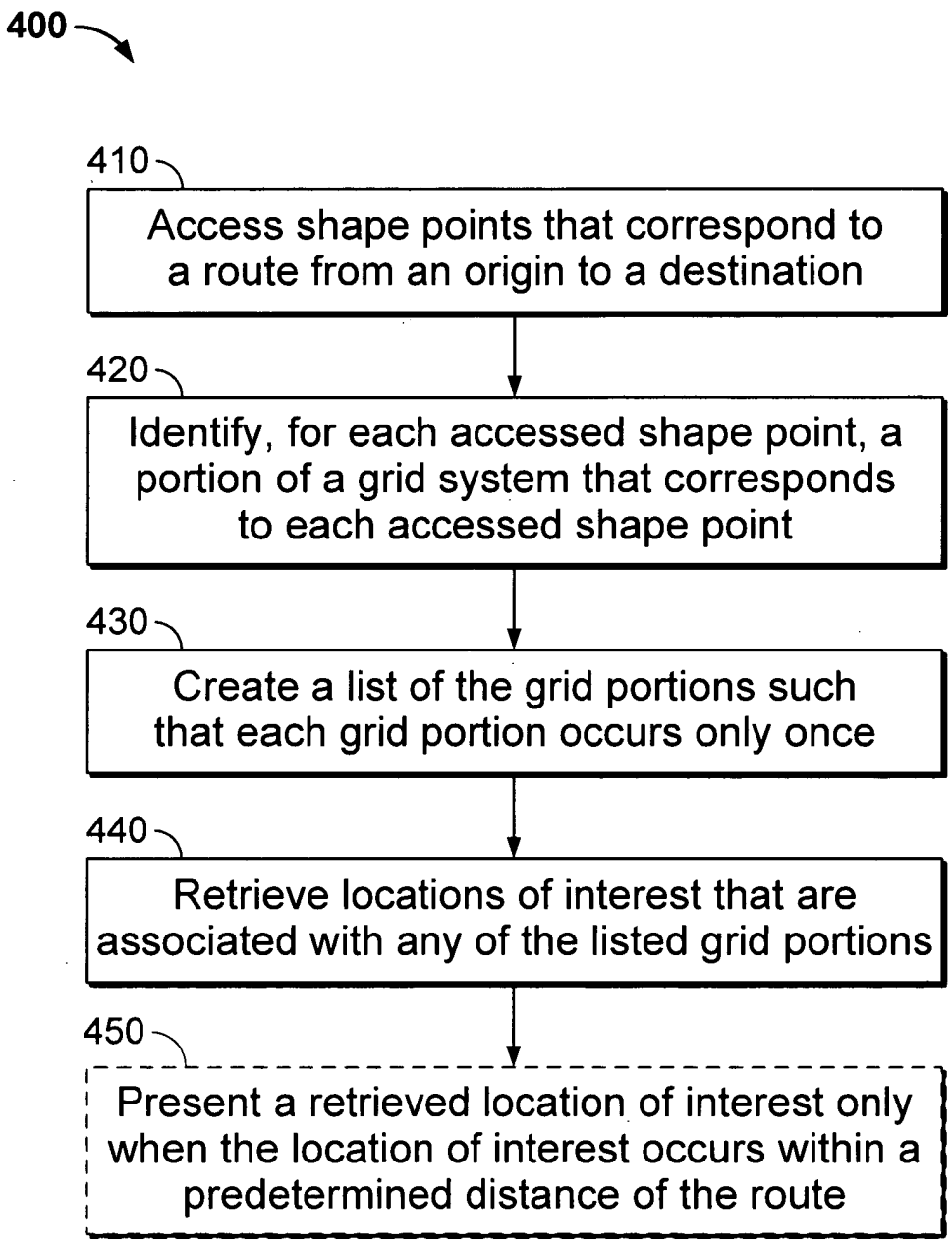
400
410
Access shape points that correspond to a route from an origin to a destination
420
Identify, for each accessed shape point, a portion of a grid system that corresponds to each accessed shape point
430
Create a list of the grid portions such that each grid portion occurs only once
440
Retrieve locations of interest that are associated with any of the listed grid portions
450
Present a retrieved location of interest only when the location of interest occurs within a predetermined distance of the route

FIG. 4

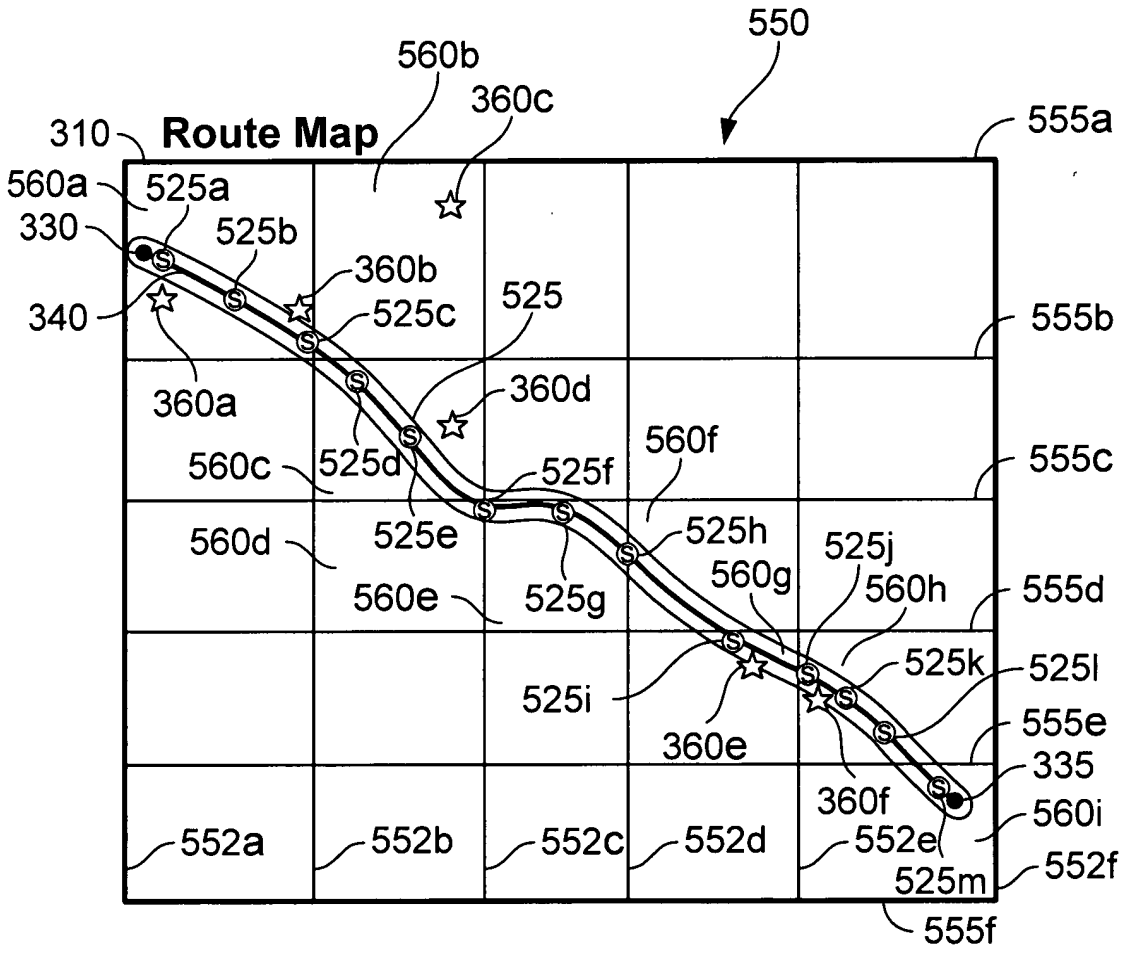
550
560b
360c
310
Route Map
555a
560a
525a
330
525b
360b
340
525c
525
555b
360a
360d
560f
560c
525d
525f
555c
560d
525e
525h
525j
560g
560e
525g
560h
555d
525k
525l
525i
555e
360e
335
360f
560i
552a
552b
552c
552d
552e
552f
525m
555f

FIG. 5

600

Shape Point	Grid Portion	Unique Grid Portions	Locations of Interest
525a	560a	560a	360a, 360b
525b	560a		
525c	560b	560b	360c
525d	560c	560c	360d
525e	560c		
525f	560e	560e	
525g	560e		
525h	560e		
525i	560g	560g	360e
525j	560h	560h	360f
525k	560h		
525l	560h		
525m	560i	560i	

670 671 675 676 677

620 660 690 695

FIG. 6

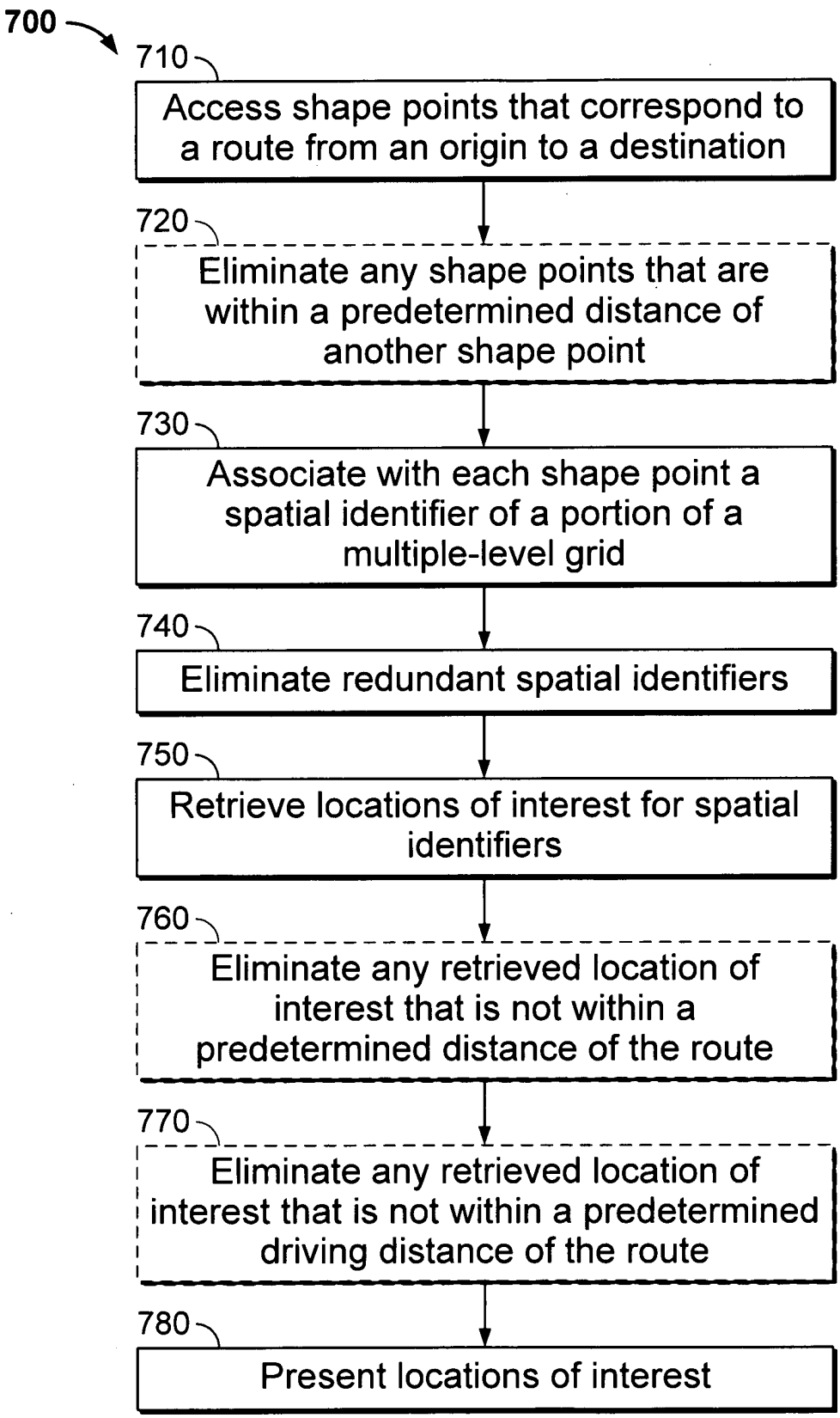
700
710
Access shape points that correspond to a route from an origin to a destination
720
Eliminate any shape points that are within a predetermined distance of another shape point
730
Associate with each shape point a spatial identifier of a portion of a multiple-level grid
740
Eliminate redundant spatial identifiers
750
Retrieve locations of interest for spatial identifiers
760
Eliminate any retrieved location of interest that is not within a predetermined distance of the route
770
Eliminate any retrieved location of interest that is not within a predetermined driving distance of the route
780
Present locations of interest

FIG. 7

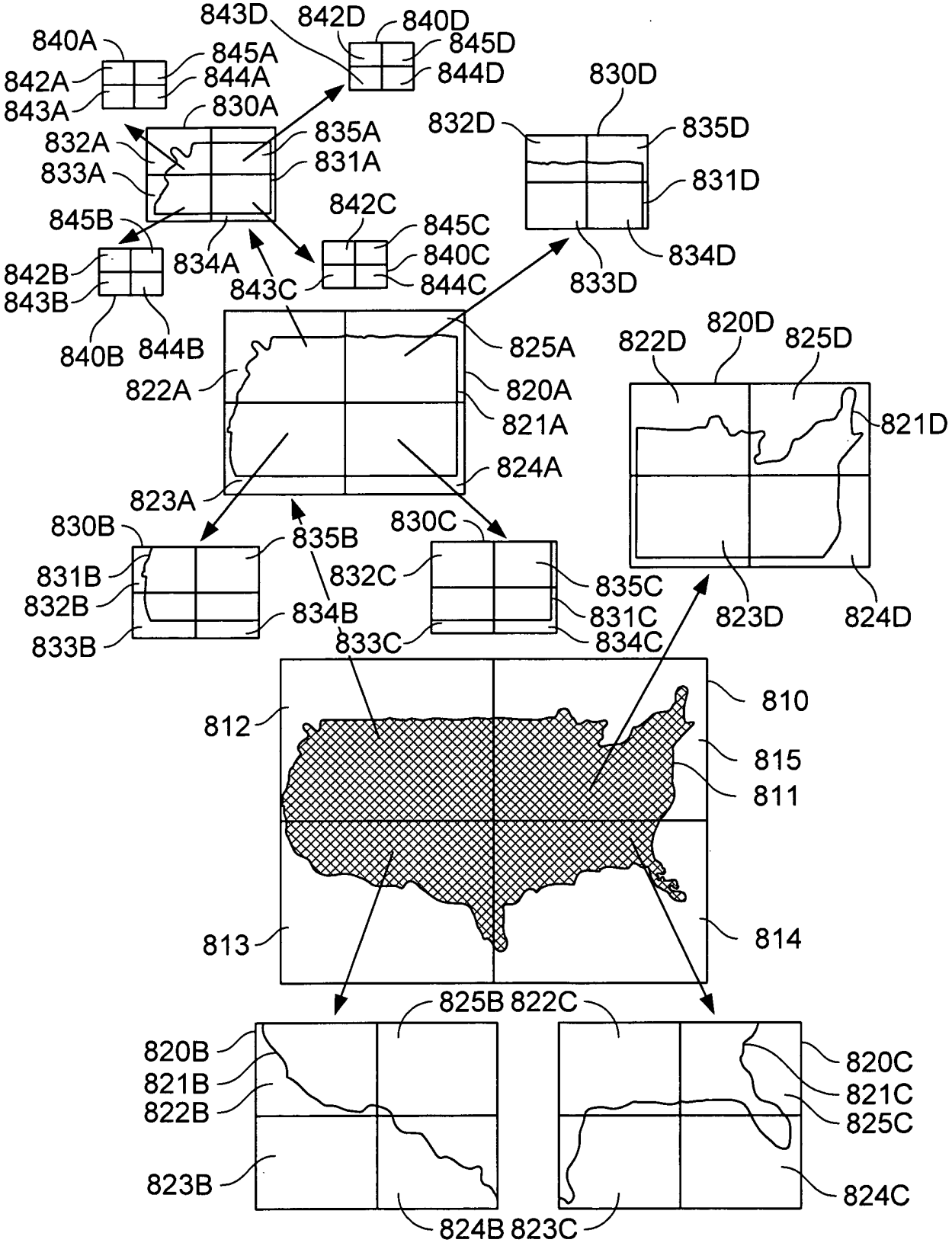
843D
842D
840D
840A
845D
845A
842A
844D
844A
843A
830D
830A
832D
832A
835D
835A
833A
831A
831D
842C
845B
845C
842B
840C
834A
844C
843C
834D
843B
833D
840B
844B
825A
820D
822D
825D
822A
820A
821A
821D
824A
823A
830B
830C
835B
831B
835C
832C
832B
831C
834B
823D
824D
833B
834C
833C
810
812
815
811
813
814
825B
822C
820B
820C
821B
821C
822B
825C
823B
824C
824B
823C

FIG. 8

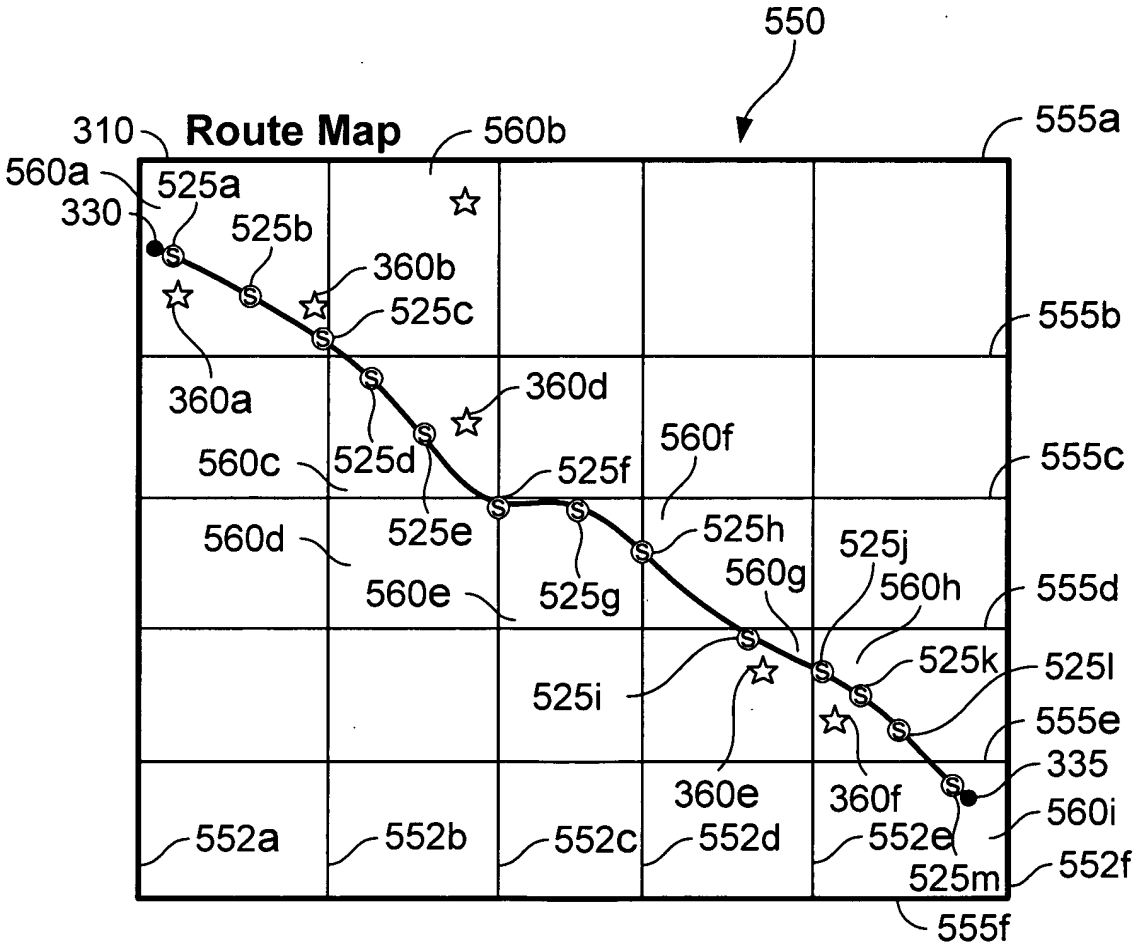
550
310
Route Map
560b
555a
560a
525a
330
525b
360b
525c
555b
360a
360d
560f
560c
525d
525f
555c
560d
525e
525h
525j
560g
560h
555d
560e
525g
525k
525l
525i
555e
335
360e
360f
560i
552a
552b
552c
552d
552e
525m
552f
555f

FIG. 9

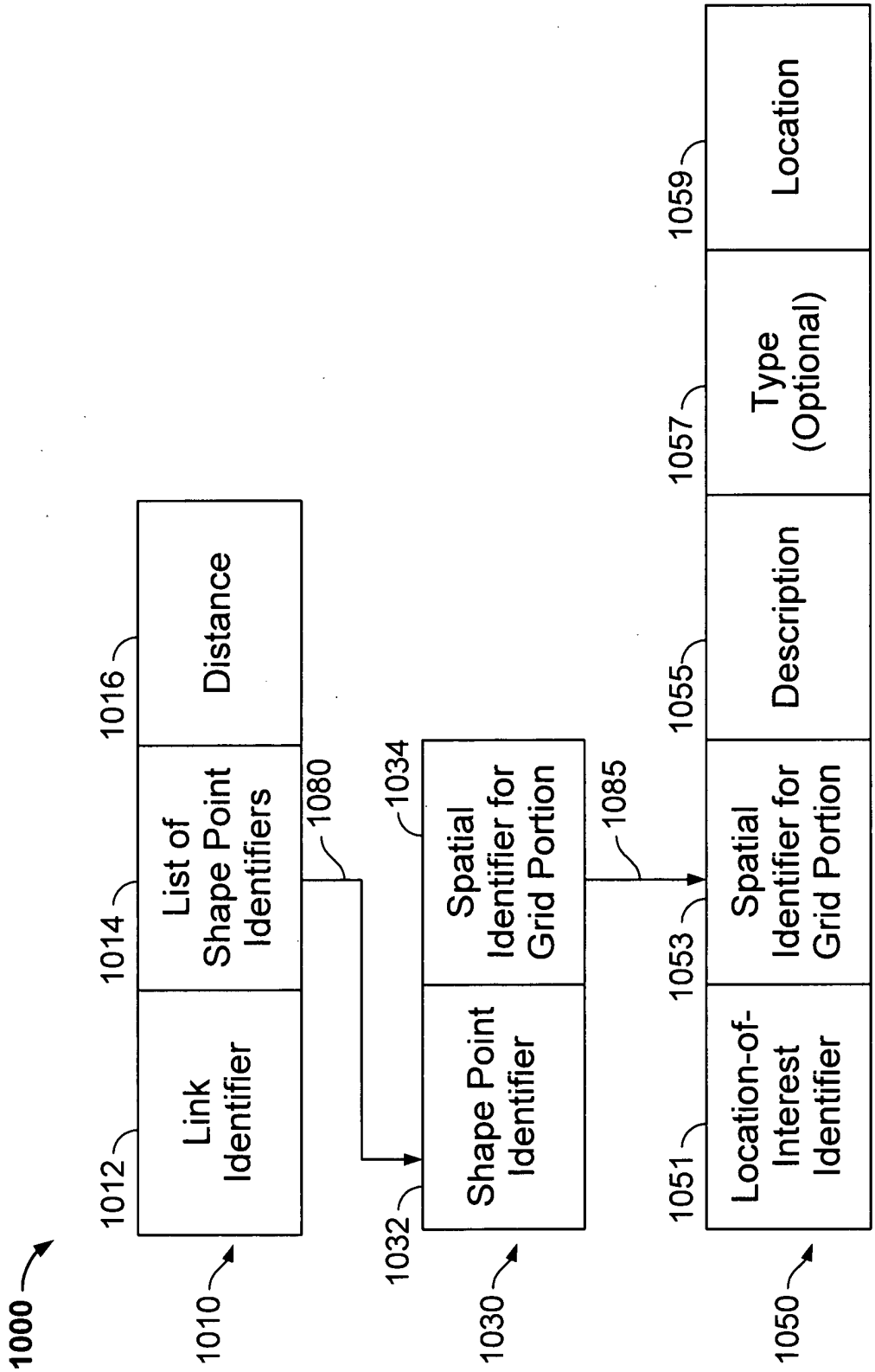
1000
1010
1012
Link Identifier
1014
List of Shape Point Identifiers
1016
Distance
1080
1030
1032
Shape Point Identifier
1034
Spatial Identifier for Grid Portion
1085
1050
1051
Location-of-Interest Identifier
1053
Spatial Identifier for Grid Portion
1055
Description
1057
Type (Optional)
1059
Location

FIG. 10

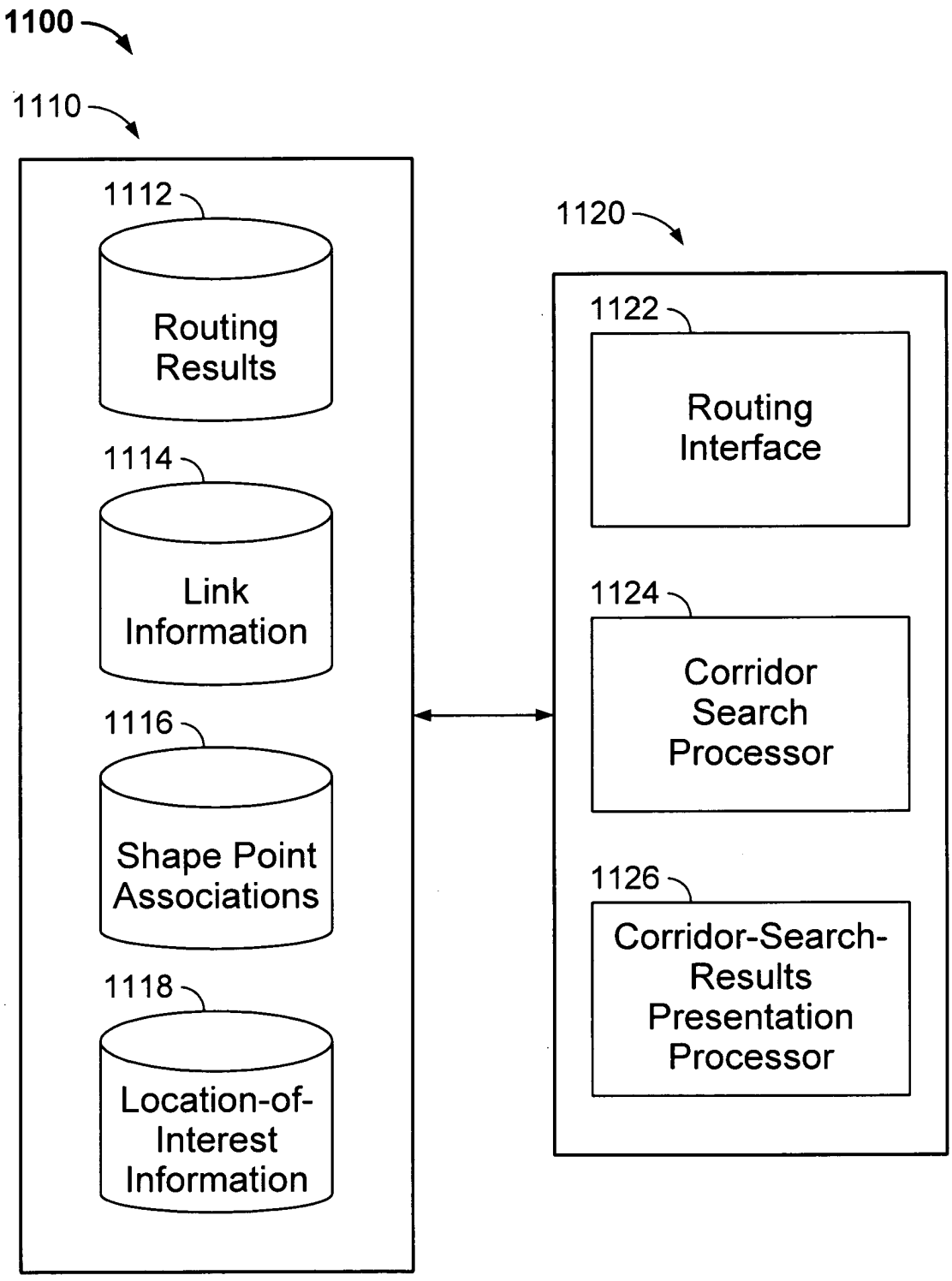
1100
1110
1112
Routing Results
1114
Link Information
1116
Shape Point Associations
1118
Location-of-Interest Information
1120
1122
Routing Interface
1124
Corridor Search Processor
1126
Corridor-Search-Results Presentation Processor

FIG. 11